

# ***Primitive Tools***



## **Teacher's Guide**



# PRIMITIVE TOOLS

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# PRIMITIVE TOOLS

***“Primitive Tools”*** is a production of the Office of Instructional Television for the State Department of Education with South Carolina ETV. The six lesson series tells the story of how primitive people used the materials found in nature to create such useful items as tools to assist with everyday life as well as the design of musical instruments and weapons.

## Guide Components:

- Description of Video Programs
- Pre-teaching Activities
- Classroom Activities
- South Carolina Curriculum Standards
- Selected Internet Resources

**Grade Level:** 3-9

## Description of Videos:

**Lesson 1: *“Introduction, Why Do We Need Tools Anyway”*** 29 minutes 29 seconds

The program begins as students are seated on the floor of a rustic cabin listening to Steve Watts, Prehistorian from Schiele Museum of Natural History in Gastonia, North Carolina. Taking the students back in time to the prehistoric period of our ancestors, Mr. Watts guides the students in thinking about daily life during prehistoric times. He notes that some facts are known about this period of time; but many things are calculations from our findings.

Originally, our ancestors were scavengers, not hunters, because of their body size and frame during this time period. Our early ancestors were herbivores, later becoming omnivores. The discovery of things around them such as a rock would change their life forever. The rock was the first tool, and then it became a weapon used for survival. Describing the process of how something became a tool and later turned into a weapon is the history of our civilization. One of the most important ancestral discoveries was how certain rocks could become sharp edged tools with a variety of uses. The human being is the only animal to use one tool to make another tool. The second most important discovery, as noted by Mr. Watts, was the “digging stick” which was used to dig up roots and later turned in to a weapon, a spear. The boomerang became a useful tool and weapon. These discoveries were made all around the world at about the same time.

During the Paleo Prehistoric period of Native Americans, our ancestors began combining tools. An example of this would be the bi-face arrowhead that was added to a long stick to make a spear. Tools and weapons were made to cut and stick. Weight, speed and how thrown gave additional power to the spear thrower. Energy outside of the body began to make a difference in the power and force of an object such as demonstrated by the bendable stick, bow. Children made a contribution through their discoveries during play. Concluding the program, Mr. Watts shared his belief that various peoples around the world were finding solutions to the same challenges at the same time using the same ideas.

## **Lesson 2: “Music Anyone?”** 27 minutes 27 seconds

Sounds were an important part of the culture of the prehistoric Native American period. A means of communication, sound developed in a sophisticated manner through the introduction of instruments. First the human body was used as a musical instrument. The rhythm of the heart beating became the basis for numerous sounds. Using parts of the body to make sounds became a part of their music. Clapping hands together, beating on legs, clicking fingers together all made a variety of sounds.

Hawk Hurst, Multi-Cultural Story Teller from Todd, North Carolina, introduces the different types of instruments used during the various prehistoric Native American periods. Instruments were made from parts of trees, seeds, nuts, deer toenails, moth cocoons, as well as a variety of other materials. The drum was one of the most sophisticated instruments made by digging material out and stretching animal skins across the openings. Types of drums and their origin are as follows:

### **North America**

Ceremonial Drum – Elks skin drum  
Hoop Drum – uses animal fur  
Navajo Drum – basket with yucca leaves  
Turtle Shell Drum – actual turtle shell

### **South America**

Tunkel Drum – log with slits

### **Africa**

Ashikos  
Dundun Drum – “talking drum” used for communication  
Oo doo Drum – clay drum used to get water

### **Asia**

Djembe  
Dumbek

### **India**

Tabla-type drum

### **Pakistan**

Clay drum made with fish skin

### **Thailand**

Calimbo

Other musical instruments included the use of natural items. Gourds were frequently used to make rattles, castanets, maracas, rain sticks, and musical bows. The gourd was washed, cleaned and poked with an awl to cut out a circle in the gourd. The seeds and pulp were removed replacing them with other types of seeds or corn. Leather was placed over the opening to make a type of instrument. Dipper gourds, long neck gourds, could be made into flutes. Xylophones were made using natural materials in Thailand. Multiple uses were found for natural products in all areas of life.

Music was an important form of communication. “Talking drums” could spread the village news. Each instrument was different and shared a part of the history of the period.

### **Lesson 3: “Let’s Go Fishing”** 23 minutes 17 seconds

Man used many survival skills during the prehistoric Native American period in history. Although the word “primitive” has a variety of negative connotations, it literally means first. During the prehistoric Native American period, many firsts took place as early skills developed into important survival skills. Stone Age actually refers to the utilization of stone, bone and wood in making tools and weapons.

Benjamin Pressley of Primitive Survival: Wilderness Living in Stanley, North Carolina shared his knowledge of the early skills used in fishing. Fishing was an important part of every culture as a means to get food for survival. A variety of techniques were used to fish. The Catawba and Cherokee frequently used spear to fish with pinning the fish on the bottom of the riverbed. Spears were made out of River Cane. The bow and arrow was also used to quickly strike a fish. Arrows had cordage attached so that only one arrow was needed to fish. The points on the arrow were barbed in such a way that the point remained in the fish until the fisherman removed it. Fletching was used to assist in seeing the floating fishing devices. The feathers were also used on some spears.

Poisons were utilized to stun the fish so that they would float to the top of the water. The fish were only knocked out, not dead. The Pokeberry plant, Yucca plant and Walnut shell were used in this manner. A poisonous soapy substance would clog the gills of the fish so that it would float to the top of the water.

Other types of fishing equipment included knives made out of crocodile jawbone like the Seminoles used. Fishing rigs were made by the Algonquines using feathers, rocks for sinkers and gourd hooks. Primitive people did not use J-shaped hooks as most fishermen use today. Bone was sharpened on either end and covered in beeswax.

Fish basket traps were also used to catch fish. The basket was made with sharp sticks to keep the fish from swimming out of the trap. The basket would sink to the bottom of the river with a cord tied to some type of floater so that it could easily be retrieved. Gourd bait and “tackle boxes” were made by using a bone awl to cut out a part of the gourd to make an opening that would be large enough to carry bait or fishing rigs. Prehistoric Native Americans had to catch enough fish and game to survive during the winter. Food was cooked or dried to preserve for later use. Survival was the motivating force in the discovery of equipment, tools and weapons.

Cordage was made during the prehistoric Native American period using a type of grass known as Raphia. By counter twisting grasses together, cordage was made to be used in nets, strings and other useful parts of things. Many fished using a corn cob as a fishing float hollowed out in the center with an awl strung with a cord through the center, a rock attached for a weight and tied to a sharpened bone hook covered in beeswax with a feather stuck in the cob. This fishing line could be just as successful as much of the elaborate equipment of today. Fishing was important to the survival of the Native American.

#### **Lesson 4: “Fire!”** 24 minutes 50 seconds

Scott Jones, MediaPrehistoria from Carlton, Georgia, leads students in understanding the importance of fire as a tool. Students will first learn the way of making fire then will learn how to use fire as a tool. Using fire as a tool, students will make a mortar and pestle, which will be useful in making other things. Demonstrating the concept of friction by rubbing his hands together, Mr. Jones discusses how friction can also rub parts of something away such as the dirt and dry skin of your hands just as it does when making fire. He then uses a bow drill placed on a piece of wood (hearth) with small circular cutouts. Bark is placed underneath the opening in the wood so that the turning spindle is causing friction on the bark. From this friction, dust is created causing smoke and the beginnings of fire.

Making fire is a skill, more sophisticated than a craft. Primitive skills were important in the survival of the human being. Prehistoric Native Americans made a bow from River Cane and cord. The string was placed around a stick making it into a spindle that was placed on a piece of wood. The spinning motion created friction on the piece of bark under the wood causing a separation. The bark began to smoke reacting similarly to charcoal. By blowing on the piece of bark and placing it near dried grasses, a fire was started. Coal is a mineral, a combination of carbon and sulphur, a piece of burning wood. By blowing steadily on the coal, extra oxygen accelerates the fire. A blowpipe is made to assist in this process. Taking a piece of River Cane, cutting grooves between the notches with a sharp flint flake, then running a broom straw through the cane to remove any pulp, are the steps involved in making a blowpipe. The three basic ingredients in making a fire are oxygen, fuel and heat.

From learning how to make a fire, students proceed to make a mortar. The bark known as coal is placed in the middle of a blank, cut log, and then blown with a blowpipe causing the fire to burn layers of the wood under the coal. Layers are scraped away with a flint flake, the process repeats itself. Areas of the wood can be protected from the fire by placing a paste of mud around the edges. A new tool is created as the mortar and rock pestle can be used to break up and crush things to make other needed things. Practical survival skills are taught through the use of fire as a tool.

#### **Lesson 5: “Pottery”** 19 minutes 2 seconds

Artifacts that are dug up or found give us valuable information about the prehistoric Native American periods. Many items were made of materials that rotted leaving no trace. Inorganic items such as stone projectile points and pottery shards give us a view of the past. Mark A. Butler of Knap Time Productions in Moncks Corner, SC, reviews the important lessons learned from artifacts.

The Paleo Indians were the first people to come across the Bering Strait. They carried everything on their backs identifying them as a nomadic people. Recognized as “hunters and gatherers” these nomads used tools and weapons such as “digging sticks” and “throwing sticks” or non-returning boomerangs to gather food and hunt. Early technology also includes the many types of cordage discovered tying our world to the world of our ancestors. Nets, bags and pouches are examples of the usefulness of cordage. Discovered in desert caves, nets were utilized as a way to capture desert rabbits for food.

During the next period, the Archaic period, Native Americans began to settle down as noted by the artifacts of heavy stone bowls known as soapstone bowls. These peoples were also spear throwers. The Archaic period was followed by the Woodland period identified by the use of bows and arrows and clay pots.

Students were given the materials to make “pinch pots,” a form of pottery used during the Woodland period. The processes of blending clays and “firing” pots were described in the program. In order to make the pots useful, water had to be removed from the clay by a process known as “firing.” Clay pottery was among the many artifacts that identified this prehistoric Native American period.

## **Lesson 6: “Animal Skins!”**

26 minutes 37 seconds

Tom Mancke, Science Teacher at Hammond School, shares his expertise in the practical uses of deer hides and bones. Mr. Mancke displays cordage made from sinew. Sinew had many uses for the prehistoric Native Americans. Dried sinew becomes soft which can be separated into sewing threads by pounding with a hammer stone then pulling apart. Soaking sinew in water will cause it to become a glue-like substance that can then be attached. Mr. Mancke demonstrated separating sinew and making it into cordage.

Toe bones, hiding inside the toe nails of a deer, can be ground on rough stone to make into other items such as fish hooks. Many practical tools can also be made from grinding deer bones.

Ceremonies and celebrations play a very important part in the culture of the Native American peoples. The use of music was a part of these events. Instruments were made from nature such as making deer toenails into rattles. Small bones below the dewclaws on the front legs of the deer could be used as sewing needles. Bone awls were useful tools made from deer bones.

The process of drying deerskin was explained in detail to students. Students were to skin the deer's leg using the sharp edge of a stone plate. After pulling the skin off the bone, students were taught how to put 4 small holes in the edges of the skin and 2 small holes on each side using a bone awl. Students were to make a round frame using grape vines tying the ends together. Using sinew cordage, students tied the deerskin to the grape vine frame to dry. After drying, the underside of the skin was cleaned by sanding the remaining skin. Deerskins could be displayed or made into other items.

### **Pre-teaching Activities:**

- Discuss the quote, “Those who cannot remember the past are condemned to repeat it.” As a result of this discussion, students will develop an understanding of why one studies history.
- Explore with students how historians build a knowledge base through archeology.
- Also, explore how botanist, geologist and zoologist assist in identifying and classifying artifacts. Research how artifacts are dated using stratigraphy and radiocarbon dating.
- Discuss with students how geography influences history.
- Students should explore various theories concerning the first Americans, where they came from and how long ago they arrived on the North American continent.
- Research with students the theory of an Ice Age Bering Land Bridge migration by nomadic groups of hunter/gatherers who were following herds of large game animals.
- Study the five periods of prehistoric Native American History: Paleo, Archaic, Woodland, Mississippian, and Historic.

Activities should be simplified or enriched based on the developmental level of the students. Portions of all activities can be utilized with elementary, middle and high school students.

## Activities:

1. Vocabulary: As students watch the various program lessons, a listing of new vocabulary words should be kept as a class journal to be defined and discussed. Examples of vocabulary words may include the following:

ancestors  
archaic  
archeologist  
archeology  
artifacts  
fletching  
Historic  
Mississippian

Native American  
Paleo  
prehistoric  
primitive  
sinew  
Stone Age  
Woodland

2. With the entire class, develop one prehistoric Native American timeline indicating the approximate dates of the five periods: Paleo, Archaic, Woodland, Mississippian, and Historic. List the introduction of early tools and weapons such as digging sticks, bow and arrow, clay pots, etc.
3. Contact the South Carolina Institute of Archeology and Anthropology to send a resource speaker to the class for a more in-depth study of the importance of archeology as it relates to understanding our present culture.
4. Divide the class into research groups assigning different primitive tools and weaponry to each group for study. After researching the history and impact of each assigned tool/weapon, groups should report to the class concerning their findings emphasizing how the tools and weapons improved the Native American's everyday life.
5. Research and explore the contributions made by prehistoric Native Americans to our modern American culture.
6. Preview and watch the following video programs (depending on grade and developmental level of students) at <http://www.myetv.org/education/streamlinesc/>

*American History: American Beginnings*

*Forensics: Who Killed the Icemen?*

*Long Ago, Yesterday, and Today*

*Native America: Culture Issues*

*Native Americans: The First Peoples*

7. Develop an "Early Technology Week" to model the lessons in the program **"Primitive Tools."** This should be done with the assistance of other school staff as resources. An "Early Technology Week" could be a school-wide project/grade level project. In-depth planning should involve school administrators and curriculum specialists.



## Selected Internet Resources

The Selected Internet Resources can be used both by the instructor and students. Supervision of student use of Web sites is recommended. Other site resources are available. The sites were active at the time of publication.

**Archaic Indians** – <http://www.heritage.nf.ca/aboriginal/maritime.html>  
<http://www.cr.nps.gov/seac/archaic.htm>

**ETVStreamlineSC** – ETV's StreamlineSC is a standards-based video-on-demand service with 40,000 plus video clips. Site searches for Native Americans support the curriculum in this guide.  
<http://www.myetv.org/education/streamlinesc/>

*American History: American Beginnings*  
*Forensics: Who Killed the Iceman?*  
*Long Ago, Yesterday, and Today*  
*Native America: Culture Issues*  
*Native Americans: The First Peoples*

**Historic Indians** – [http://www.museum.state.il.us/muslink/nat\\_amer/post/htmls/il.html](http://www.museum.state.il.us/muslink/nat_amer/post/htmls/il.html)  
[http://www.ncgold.com/Museums\\_Parks/syrrp/natvamer.html](http://www.ncgold.com/Museums_Parks/syrrp/natvamer.html)

**Knowitall.org** – There are many resources to use on this Website to support the information in this guide.  
<http://www.knowitall.org/>

**Mississippian Indians** – <http://nativeamericans.com/MoundBuilders.htm>  
[http://www.museum.state.il.us/muslink/nat\\_amer/pre/htmls/m\\_sites.html](http://www.museum.state.il.us/muslink/nat_amer/pre/htmls/m_sites.html)  
<http://mcclungmuseum.utk.edu/permex/archaeol/xrm-text.htm>

**Museum of Illinois** – Prehistoric Native Americans  
[http://www.museum.state.il.us/muslink/nat\\_amer/index.html](http://www.museum.state.il.us/muslink/nat_amer/index.html)

**National Museum of the American Indian** – <http://www.nmai.si.edu/>

**Native American Website** – Elementary Class Website <http://www.mce.k12tn.net/indians/index.htm>

**Native Americans** – <http://www.nativeamericans.com/>

**Native Americans** – Mojave Desert <http://mojavedesert.net/mojave-desert-indians/>

**Native Americans Website for Children** –  
<http://www.nhusd.k12.ca.us/ALVE/NativeAmerhome.html/nativeamhome.html>

**Paleoindians** – <http://www.ohiohistorycentral.org/entry.php?rec=1280>

**Prehistoric Native Americans** – Florida <http://dhr.dos.state.fl.us/facts/history/native/>

**The Native Americans** – <http://www.pbs.org/lewisandclark/native/index.html>

**Woodland Indians** – <http://www.relist.net/indian/woodland.html>  
<http://chieftainstrail.com/stories/woodland.html>

# South Carolina Curriculum Standards

## Social Studies Academic Standards

**Standard 3-2:** The student will demonstrate an understanding of the exploration and settlement of South Carolina and the United States.

### Indicators

3-2.4 Compare the culture, governance, and geographic location of different Native American nations in South Carolina, including the three principal nations—Cherokee, Catawba, and Yemassee—that influenced the development of colonial South Carolina. (H, G, P, E)

**Standard 4-2:** The student will demonstrate an understanding of the settlement of North America by Native Americans, Europeans, and African Americans and the interactions among these peoples.

### Indicators

4-2.1 Use the land bridge theory to summarize and illustrate the spread of Native American populations. (G, H)

4-2.2 Compare the everyday life, physical environment, and culture of the major Native American cultural groupings, including Eastern Woodlands, Southeastern, Plains, Southwestern, and Pacific Northwestern. (G, H)

**Standard 6-1:** The student will demonstrate an understanding of the transition of humans from nomadic to settled life in the cradles of civilization.

### Indicators

6-1.1 Analyze the hunter-gatherer communities in regard to their geographic, social, and cultural characteristics, including adaptation to the natural environment. (G, H)

**Standard 8-1:** The student will demonstrate an understanding of the settlement of South Carolina and the United States by Native Americans, Europeans, and Africans.

### Indicators

8-1.1 Summarize the culture, political systems, and daily life of the Native Americans of the Eastern Woodlands, including their methods of hunting and farming, their use of natural resources and geographic features, and their relationships with other nations. (H, G, P)

8-1.2 Categorize events according to the ways they improved or worsened relations between Native Americans and European settlers, including alliances and land agreements between the English and the Catawba, Cherokee, and Yemassee; deerskin trading; the Yemassee War; and the Cherokee War. (H, P, E)

## Science Academic Standards

### Grade 3

#### I. Inquiry

Process skills and inquiries are not an isolated unit of instruction and should be embedded throughout the content areas. Safety issues should be addressed as developmentally appropriate.

#### A. Process Skills

##### 1. Observe

a. **Use the senses to gather information about objects or events such as size, shape, color, texture, sound, position, and change (qualitative observations).**

### III. Earth Science

Unit of Study: Earth Materials

#### A. Properties of Earth Materials

##### 1. The varied earth materials have different physical properties and uses.

- a. Describe earth materials (rocks, minerals, water, soil, and fossils) by their physical properties.

Grade 5

#### I. Inquiry

Process skills and inquiries are not an isolated unit of instruction and should be embedded throughout the content areas. Safety issues should be addressed as developmentally appropriate.

#### A. Process Skills

##### 5. Infer

- a. Explain or interpret an observation based on data and prior knowledge.
- b. Discriminate between observations and inferences.

##### 6. Predict

- a. Use prior knowledge and observations to identify and explain in advance what will happen.
- b. Discriminate between inferences and predictions.

##### 7. Hypothesize

- a. Devise a statement of assumption, based on observations, experiences, and research, that can be supported or refuted through experimentation.

Grade 6, 7 & 8

#### I. Inquiry

#### A. Abilities Necessary to do Scientific Inquiry

##### 3. Use appropriate tools and techniques to gather, analyze, and interpret data

- a. Select and use appropriate tools and technology (such as calculators, computers, probes, thermometers, balances, spring scales, microscopes, binoculars, and hand lenses) to perform tests, collect data, and display data.

#### C. Understandings about Science and Technology

##### 2. Many different people in different cultures have made and continue to make contributions to science and technology.

- b. Describe examples of contributions people have made to science and technology.  
(H, N)